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# Interventions to Decrease Non-Actionable Patient Alarms on the Telemetry Unit

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## Purpose:

- Telemetry monitoring is an essential aspect of patient safety in hospital settings (Walsh-Irwin & Jurgens, 2015).
- The goal of this project was to facilitate nurses' duties throughout the unit in order to provide faster, more efficient patient care while also increasing patient safety and outcomes.

## Targeted Audience:

- The target audience is the staff on 6W, the Progressive Care Unit (PCU) /Telemetry unit at Norwalk Hospital. The staff include nurses, patient care technicians, physicians, secretaries, and nurse managers.



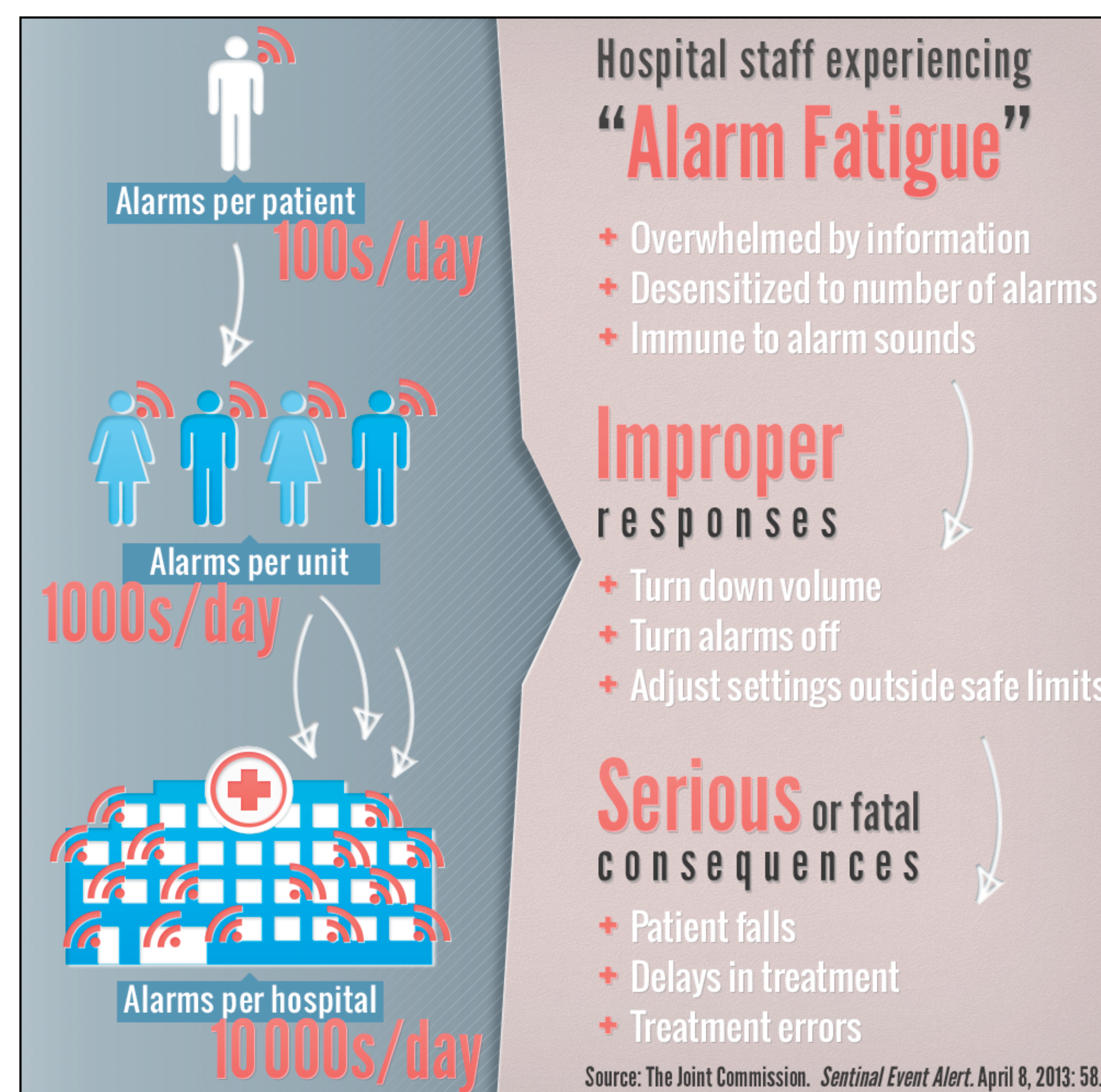
## What Are Non-Actionable Patient Alarms?

- A non-actionable patient alarm is an alarm that does not require immediate attention for a medical or emergent reason (Ruskin & Hueske-Kraus, 2015).
- Non-actionable patient alarms create false readings of abnormal patient conditions that offset alarms and take attention away from clinically significant alarms that require immediate medical interventions.
- These false readings can be a result of the incorrect placement of electrodes or lead wires on a patient, improper skin preparation, movement of a patient, inadequate training on proper use of equipment, or other various malfunctions that occur in the clinical setting.
- As cardiac alarms go off throughout the work day, nurses can develop alarm fatigue.



## Alarm Fatigue:

- Alarm fatigue is the desensitization and potentially inappropriate silencing of alarms due to frequent invalid and non-actionable alarms (Harris et al., 2017).
- Alarm fatigue can alter the level of patient safety, decrease productivity, disrupt the work day, cause missed alarms, and can cause preventable patient deaths (Harris et al., 2017).
- Alarm fatigue may cause nurses to inappropriately silence alarms due to the frequency of these invalid and non-actionable patient alarms (Harris et al., 2017).
- The alarm systems that are connected to patients are designed to quickly notify hospital staff of abnormal patient conditions. However, these alarms can be offset by factors that do not require immediate medical intervention, taking attention away from those patients who need the most care (Harris et al., 2017).



(Mitka, 2013)

## If You Can't Rest, You Can't Heal



## What Patients Said About Hospital Alarms...

77% responded that the alarms **DISTURBED** their sleep

60% noted that the alarms were **CONSTANTLY BEEPING** during their stay

58% responded that the alarms made them feel **ANXIOUS**

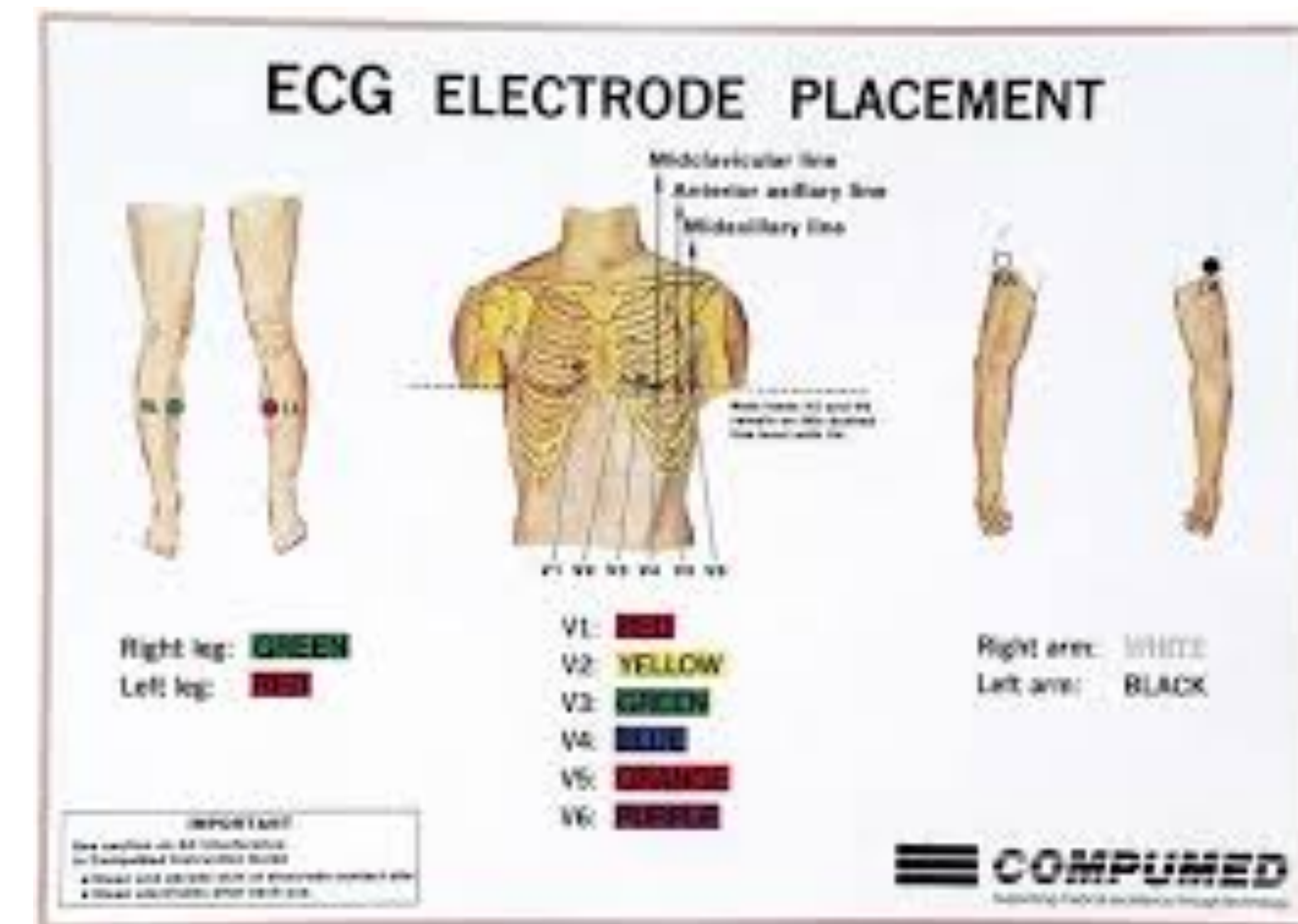
(Vocera Communications, 2018)

## Evidence-Based Research:

- EKG monitoring can be used to detect cardiac arrhythmias, any changes presented, and QT monitoring (Walsh-Irwin & Jurgens, 2015).
- Studies conducted in 2011 and 2013 found that more than 70% of hospital staff reported that non-actionable alarms occur frequently on units which disrupt patient care, diminish the response time to alarms, and disturb work ethic on the unit (Harris et al., 2017).
- Between the years 2010 and 2015, over 500 alarm related patient deaths have been reported by the US Food and Drug Administration (Ruskin & Hueske-Kraus, 2015).
- Patient satisfaction has been compromised due to the constant sounding of alarms which led to increased sleep disturbance and delayed healing time (Harris et al., 2017, p.1).
- According to Harris et al. (2017), a reasonable approach to solving this non-actionable and alarm fatigue issues would be to carefully assess the need for continuous EKG monitoring on certain patients (Harris et al., 2017).

References available as a handout

## Diagram of Lead Placement



(Google Images, 2017).

## Nursing Interventions:

### Interventions to minimize electrode dysfunction:

- Shave or cut the hair where the electrodes will be placed.
- Clean each of the electrode sites with soap and water.
- Thoroughly dry the electrode site to promote electrode attachment.
- Lightly exfoliate the area using Skin Prep Paper to help improve conduction and reduce artifact.
- Use a washcloth to abrade the skin.
- If the patient is excessively diaphoretic apply tincture of benzoin (Electrodes and skin prep, n.d.).

## Conclusion:

This educational tool aimed to improve patient safety and outcomes while decreasing alarm fatigue and work load for nursing staff. This teaching tool provided nurses, assistive personnel, and other staff on the telemetry with evidence-based practice guidelines for the application of leads, lead placement, and general maintenance of cardiac monitor alarms.

Patient safety, patient-centered care, and interpersonal communication/collaboration leads to improved patient outcomes. This project enhanced understanding of cardiac monitoring and supported teamwork and communication among health care providers.



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